

# ENERGY AND MATERIALS RESEARCH

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## Luminescent white security paper erected from electro spun fiber

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Counterfeiting has become the serious health and security issue worldwide. It is a prime need of any government or industrial organization to protect their products from forgery activities. Herein, we report a luminescent fiber paper for anti-counterfeiting application, synthesized by the electro spinning technique by mixing the NaYF<sub>4</sub>:Eu<sup>3+</sup> in the Polyvinyl alcohol (PVA) medium and prepared the fiber sheet, which gives the emission of red color at the excitation of 254 nm source. The structural/microstructural analysis was characterized by X-ray diffraction, scanning electron microscopy, energy dispersive X-ray analysis and photoluminescence behaviour characterized by fluorescent spectroscopy. This luminescent fiber is a new and very unique idea for securing the products from counterfeiting.

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